2021 Annual Conference

Strategies for Investment of SFA Assets

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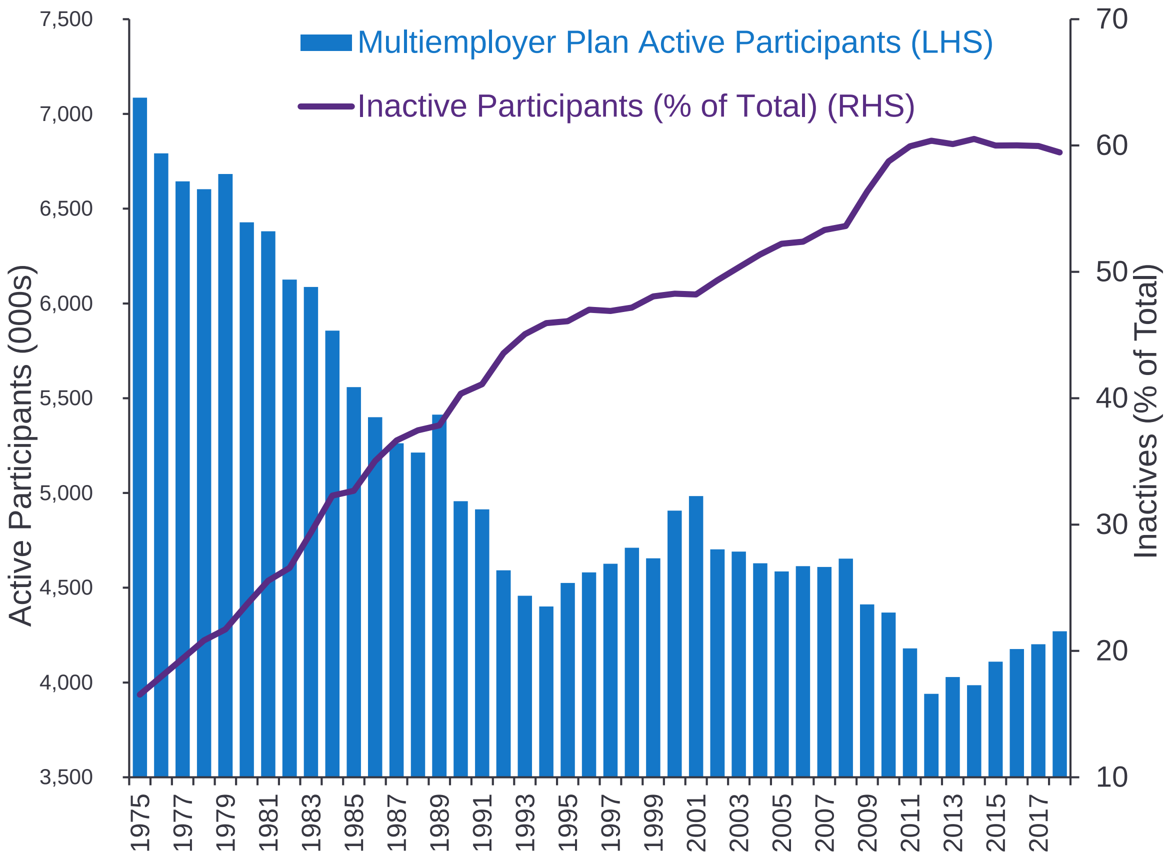
NCCMP Annual Conference

Jared Gross, Head of Institutional Portfolio Strategy | J.P. Morgan Asset Management

J.P.Morgan
Asset Management

How we got here: Multiemployer pension demographics have shifted dramatically

Active participants paying into the system have shrunk while inactives receiving payouts has ballooned



Select Industry Statistics	Metric
Total Plan Participants Per Active	2.74x
Orphans Per Active Participant	0.43x
Orphans as % of Total Participants	15.8%

Source: 5500 EBSA Abstract, 2019 DOL 5500 Schedule R and Schedule MB, JPMorgan Calculations.

SFA eligibility is broad

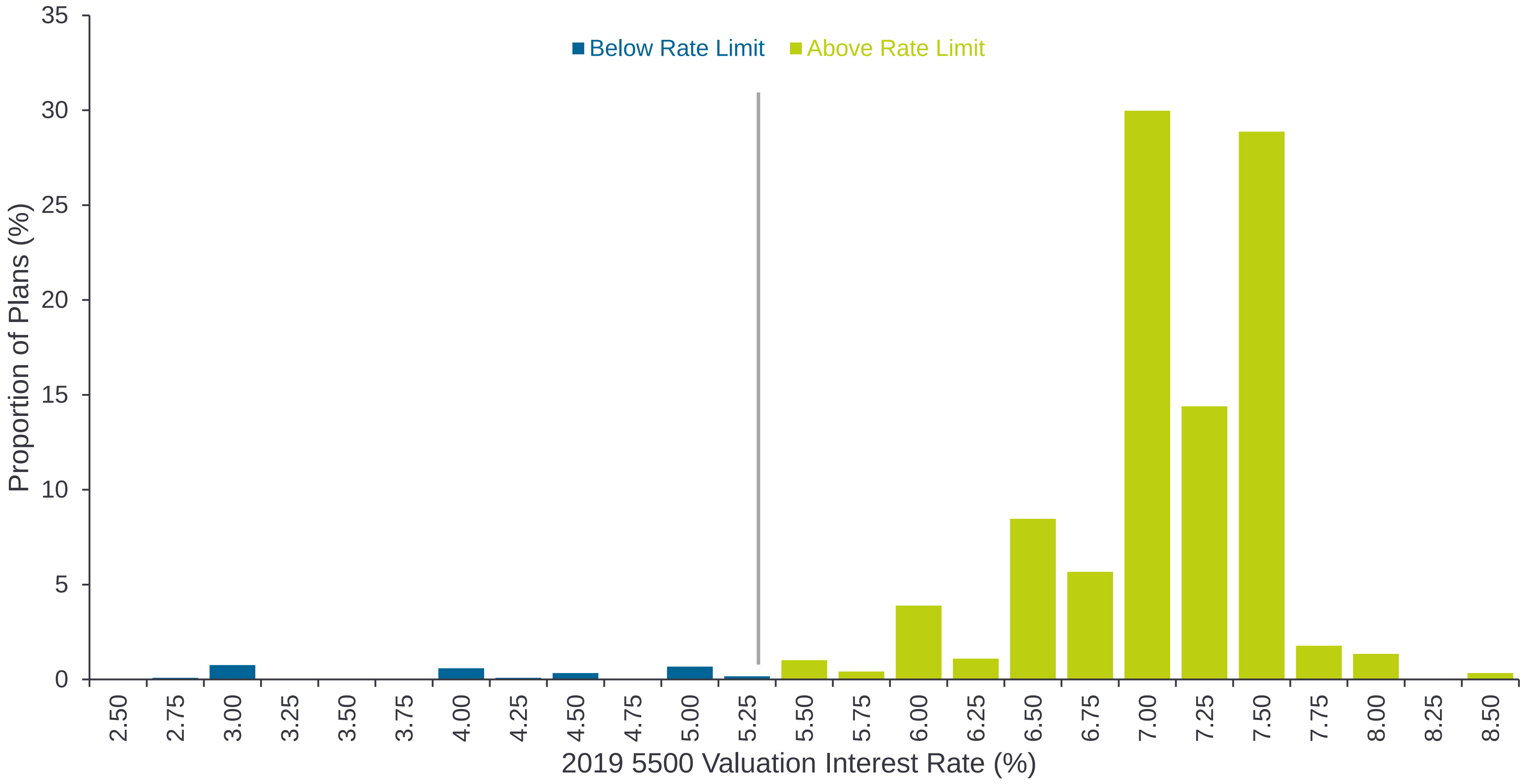
Eligible plans are those that satisfy any one of four requirements:

1. Critical and declining status in any plan year beginning in 2020 through 2022
2. An approved suspension of benefit under MPRA as of the date of the enactment of the American Rescue Plan (March 11, 2021)
3. Critical status in any plan year beginning in 2020 through 2022 AND the plan has a current liability-funded percentage of less than 40% AND the plan has an active to inactive ratio that is less than 67%
4. Became insolvent after December 16, 2014, has remained insolvent and has not been terminated

Source: J.P. Morgan Asset Management

Almost all eligible plans will use a reduced discount rate

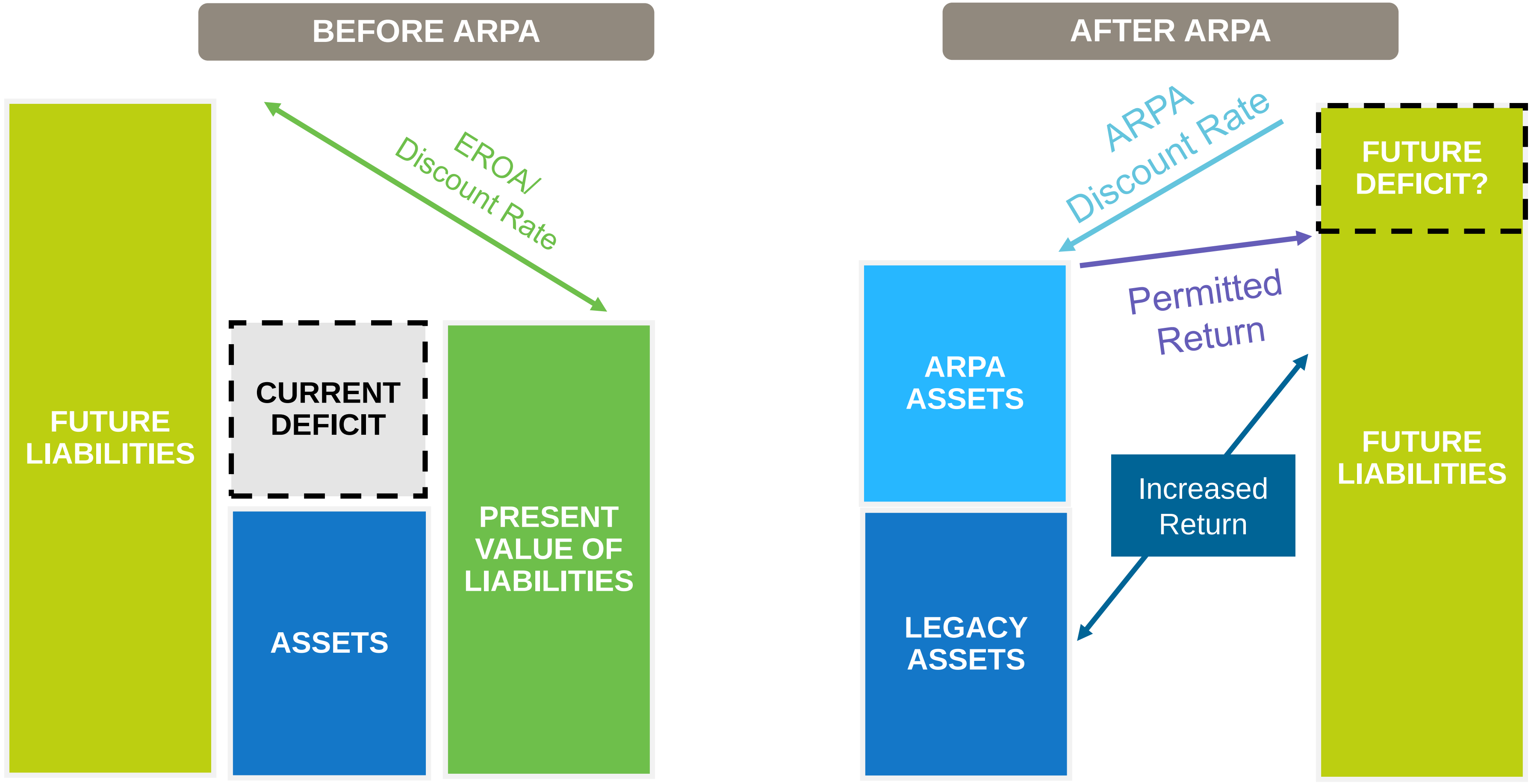
The vast majority of plans use a valuation rate above the limit and will need to use a discount rate of nearly 5.4%



Source: Valuation interest rates are from the 2019 DOL Form 5500, Schedule MB, Line 6d. The interest limit is based on the 24-month average corporate bond third segment rates as of August 2021, published by the IRS.

What the right hand giveth, the left hand taketh away

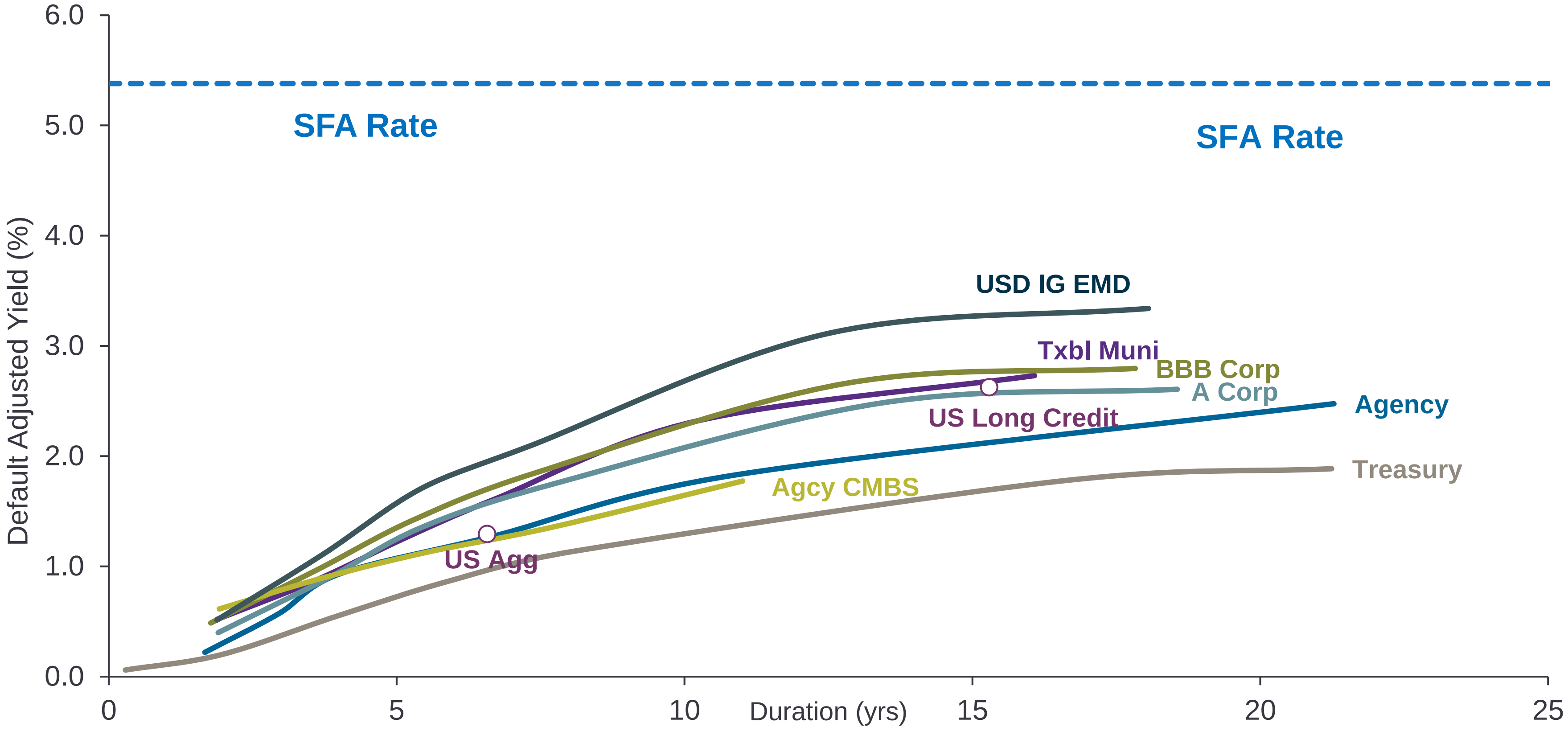
ARPA provides meaningful funding but applies highly restrictive constraints on investment



Source: J.P. Morgan Asset Management. For illustrative purposes only.

Earning the SFA rate with currently permissible investments is effectively impossible

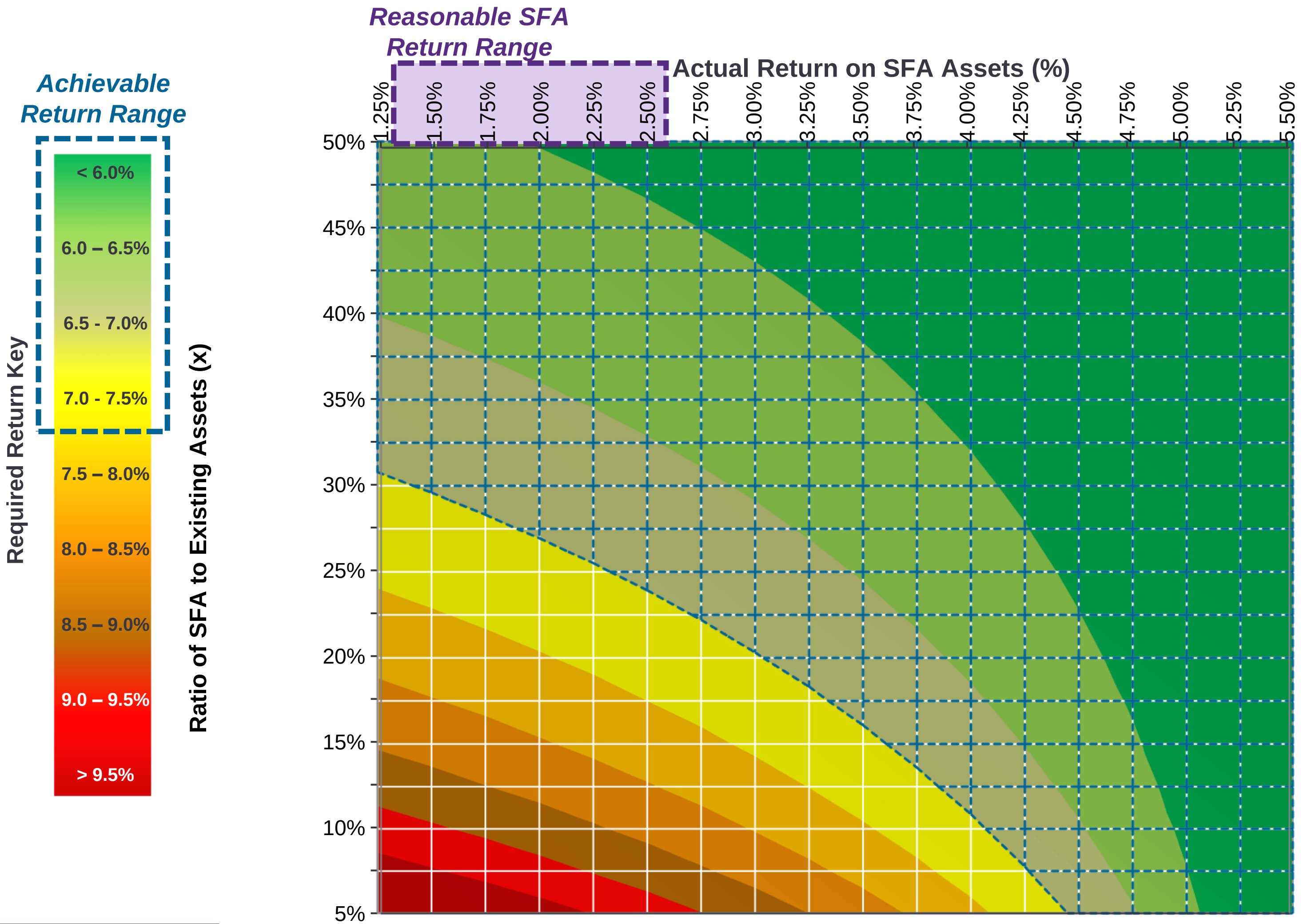
There are no eligible asset classes that earn the SFA rate, but even getting close entails taking on significant interest rate risk



Source: Valuation interest rates are from the 2019 DOL Form 5500, Schedule MB, Line 6d. The interest limit is based on the 24-month average corporate bond third segment rates as of August 2021, published by the IRS.

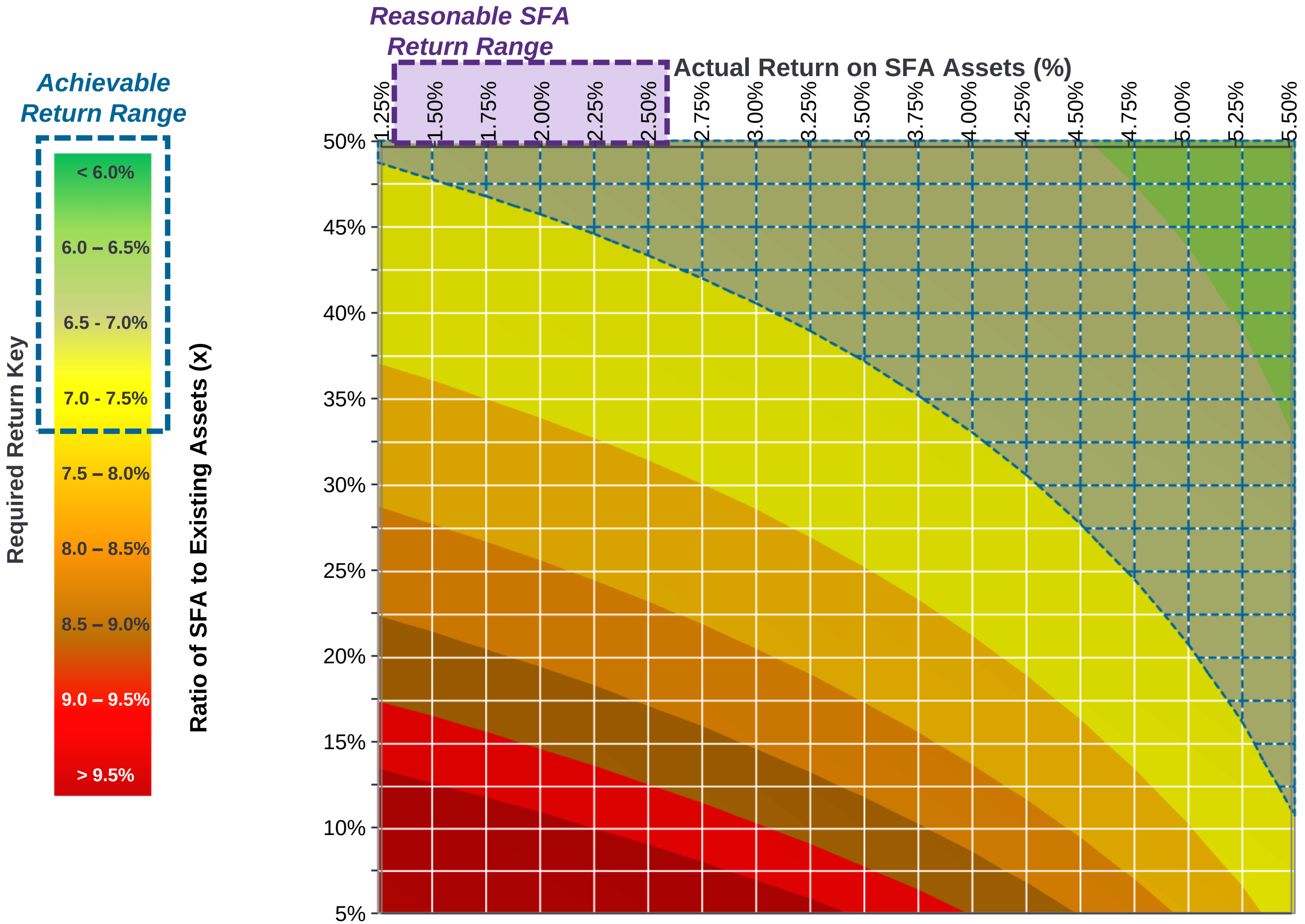
Illustrating the relationship between asset returns and solvency

Probability of paying benefits through 2051



Illustrating the relationship between asset returns and solvency

Probability of paying all benefits



2021 NCCMP Annual Conference

Strategies for Investment of SFA Assets – Permissible Investments

Sept. 27, 2021

Danielle Singer, CFA
Head of NA Pension Solutions

PBGC Interim Final Rule
SFA Assets: Permissible Investments

Section 4262.14 of the regulation describes the permitted investments of SFA:

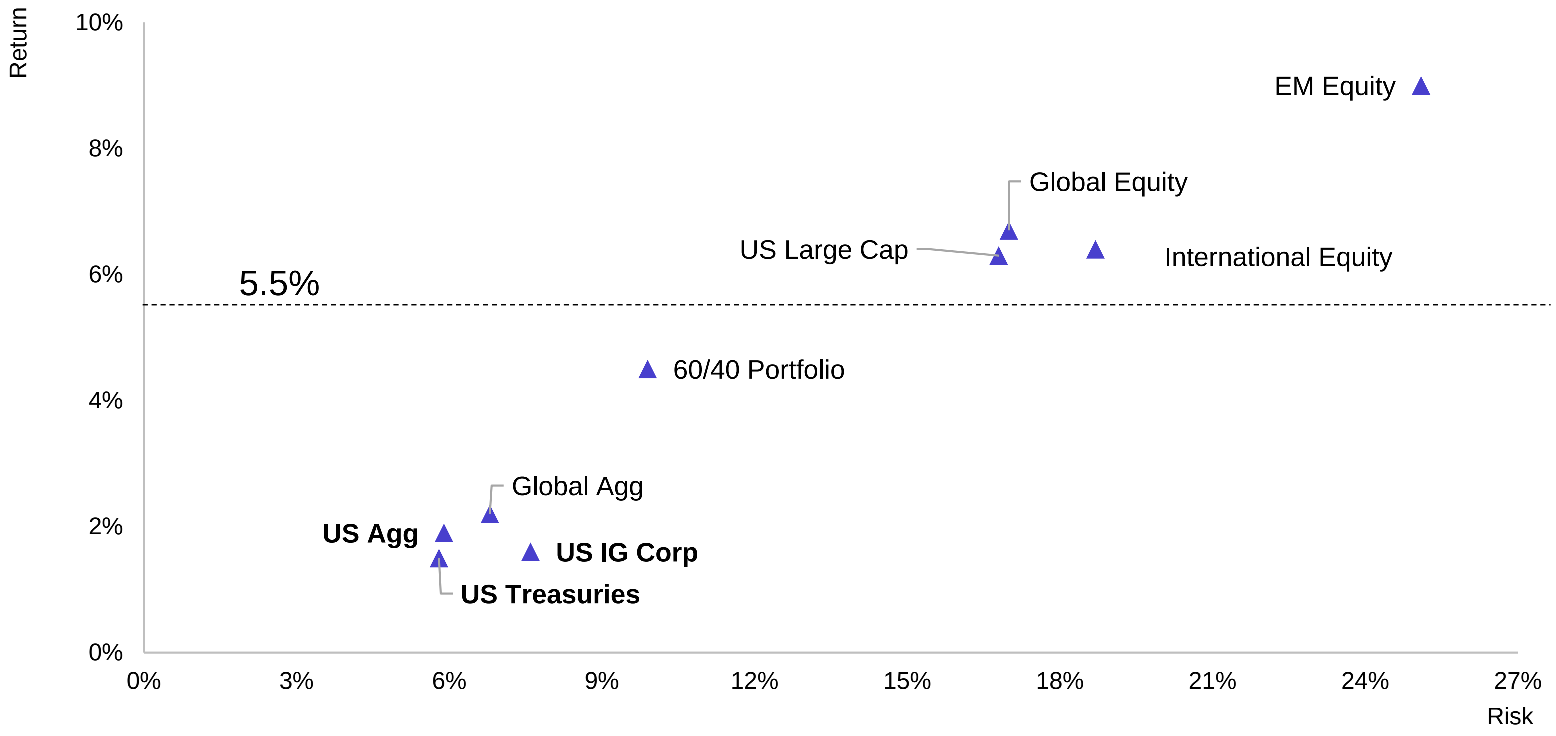
Risk	Relatively safe investments that will help ensure that short-term needs to pay benefits and plan expenses can be met
Quality	Investment grade bonds — supported by section 4246(l) of ERISA
Implementation	Individual fixed-income securities or commingled funds (Exchange Traded Funds "ETFs", mutual funds, pooled trusts, etc). Derivatives for synthetic replication or hedging, but may not increase interest rate or credit risk.
Liquidity	Publicly traded securities

PBGC Interim Final Rule
The challenge for fixed income investors

Traditional investment grade bonds may present a challenge meeting a required rate of return of 5.5%

"…with interest rates on fixed income securities remaining at historically extremely low levels, both SFA and other plan assets could be depleted and be unable to pay plan benefits long before 2051."
-PBGC Interim Final Rule

10-year asset class return and risk assumptions (USD)



Source: Invesco as of June 30, 2021. Performance, whether historical or estimated, is no guarantee of future results. There can be no assurance that any estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. Data is unhedged USD. An investment cannot be made into an index. Please note these are geometric returns. Refer to Capital market assumptions (CMAs) slide for additional CMA information.

PBGC Interim Final Rule

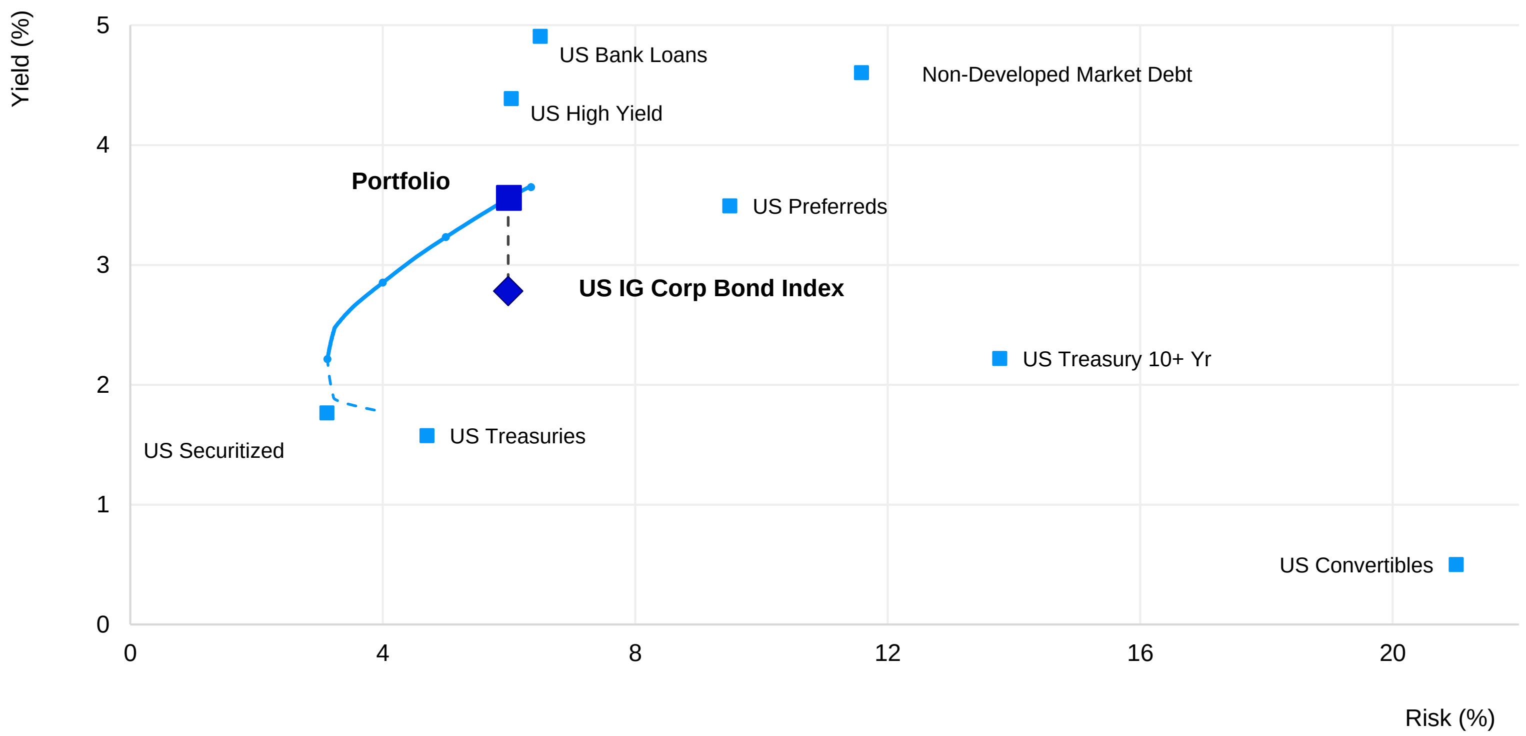
Adding fixed income diversifiers may increase return potential, but not risk

Adding additional fixed income investments may allow for increased return:

- Preferreds and convertibles
- High yield
- Non-US exposure
- Bank loans

Diversification can keep the portfolio risk similar to investment grade corporate bonds.

Efficient frontier (yield-based)



Source: Invesco as of June 30, 2021. Performance, whether historical or estimated, is no guarantee of future results. There can be no assurance that any estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. Data is unhedged USD. An investment cannot be made into an index. Please note these are geometric returns. Refer to Capital market assumptions (CMAs) slide for additional CMA information.

PBGC Interim Final Rule

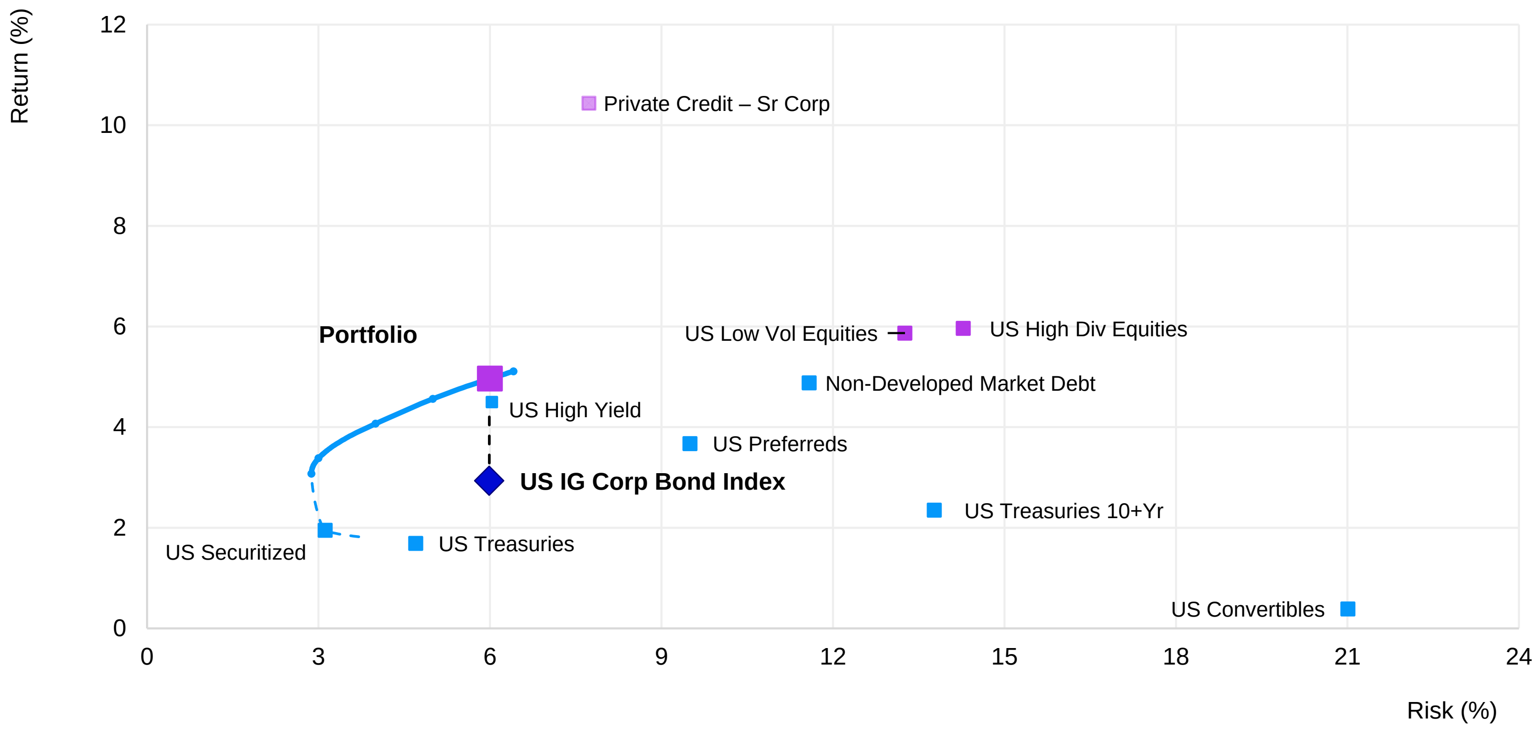
Including equities and private markets to maximize return potential

To reach returns of 5% or greater, it may be necessary to consider limited amounts of:

- Equities
- Private markets

With thoughtful portfolio construction, this can be done without increasing risk beyond that of investment grade corporate bonds.

Efficient frontier



Source: Invesco as of June 30, 2021. Performance, whether historical or estimated, is no guarantee of future results. There can be no assurance that any estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. Data is unhedged USD. An investment cannot be made into an index. Please note these are geometric returns. Refer to Capital market assumptions (CMAs) slide for additional CMA information.

Disclosures

Important information

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. This is being provided for informational purposes only, is not to be construed as an offer to buy or sell any financial instruments and should not be relied upon as the sole factor in any investment making decision. This should not be considered a recommendation to purchase any investment product. As with all investments, there are associated inherent risks.

This does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them. Please read all financial material carefully before investing. For additional information about these strategies, contact Invesco. Past performance is not indicative of future results. Portfolio holdings and characteristics are subject to change.

The opinions expressed are those of the presenter(s), are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

Invesco Advisers, Inc. is an investment adviser; it provides investment advisory services to individual and institutional clients and does not sell securities.

Capital market assumptions (CMAs)

Invesco Investment Solutions develops CMAs that provide long-term estimates for the behavior of major asset classes globally. The team is dedicated to designing outcome-oriented, multi-asset portfolios that meet the specific goals of investors. The assumptions, which are based on a 10-year or 5-year investment time horizon, are intended to guide these strategic asset class allocations. For each selected asset class, we develop assumptions for estimated return, estimated standard deviation of return (volatility), and estimated correlation with other asset classes. For additional details regarding the methodology used to develop these estimates, please see our white paper Capital Market Assumptions: Methodology update.

This information is not intended as a recommendation to invest in a specific asset class or strategy, or as a promise of future performance. These asset class assumptions are passive, and do not consider the impact of active management. Given the complex risk-reward trade-offs involved, we encourage you to consider your judgment and quantitative approaches in setting strategic allocations to asset classes and strategies. This material is not intended to provide, and should not be relied on, for tax advice.

References to future returns are not promises or estimates of actual returns a client portfolio may achieve. Assumptions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. Estimated returns can be conditional on economic scenarios. In the event a particular scenario comes to pass, actual returns could be significantly higher or lower than these estimates.

Indexes are unmanaged and used for illustrative purposes only. They are not intended to be indicative of the performance of any strategy. It is not possible to invest directly in an index.

Invesco Vision

Designed by Invesco Investment Solutions (IIS), Invesco Vision is a decision support system that combines analytical and diagnostic capabilities to foster better portfolio management decision-making. Invesco Vision incorporates capital market assumptions (CMAs) developed by IIS, proprietary risk forecasts, and robust optimization techniques to help guide our portfolio construction and rebalancing processes. Advanced risk management approaches have been incorporated into the system such as de-smoothing of alternative risk factors, multi-asset factor decompositions, in addition to stress test analyses (both historical and hypothetical) to understand the drivers of volatility within our portfolios. By helping investors and researchers better understand portfolio risks and trade-offs, it helps to identify potential solutions best aligned with their specific preferences and objectives.

The Invesco Vision tool can be used in practice to develop solutions across a range of challenges encountered in the marketplace. The analysis output and insights shown here from Invesco Vision does not take into account any individual investor's investment objectives, financial situation or particular needs. The insights are not intended as recommendations to invest in a specific asset class or strategy, or as a promise of future performance. For additional information on our methodology, please refer to the comprehensive white paper, Invesco Vision: Portfolio Management Decision Support System.

Proxy information

Asset class	Index
US Large Cap	S&P 500
US Top 200	Russell Top 200
US Mid Cap	Russell Midcap
US Small Cap	Russell 2000
US SMid	Russell 2500
US Broad	Russell 3000
Canada	S&P TSX
MSCI EAFE	MSCI EAFE
UK	MSCI UK
Eurozone	MSCI Euro X UK
MSCI Europe	MSCI Europe
Japan	MSCI JP
Asia Pacific Ex JP	MSCI APXJ
Emerging Market	MSCI EM
World Equity	MSCI ACWI
World Ex-US Equity	MSCI ACWI Ex-US
MSCI World Ex US	MSCI World Ex US
US Treasury	Bloomberg Barclays US Treasury
US Treasury Short	Bloomberg Barclays US Treasury Short
US Treasury Long	Bloomberg Barclays US Treasury Long
US TIPS	Bloomberg Barclays US TIPS

Asset class	Index
US Aggregate	Bloomberg Barclays US Aggregate
US Universe	Bloomberg Barclays US Universe
US Aggregate 1 to 3	Bloomberg Barclays US Corporate and Gov't (1Y-3Y)
US Aggregate Credit	Bloomberg Barclays US Aggregate Credit
US Investment Grade	Bloomberg Barclays US Investment Grade
US Inv Grd Corps Long	Bloomberg Barclays US Long Credit
US High Yield	Bloomberg Barclays US High Yield
US MBS	Bloomberg Barclays US MBS
US Municipals	BOA ML US Municipal
US Intermediate Municipals	BOA ML US Municipal (3Y-15Y)
US Bank Loans	CSFB Leverage Loan
US Preferred Stocks	BOA ML Fixed Rate Pref Securities
Global Aggregate	Bloomberg Barclays Global Aggregate

Asset class	Index
Global Treasury	Bloomberg Barclays Global Treasuries
Global Sovereign	Bloomberg Barclays Global Sovereign
Global Corporate	Bloomberg Barclays Global Corporate
Global Aggregate-Ex US	Bloomberg Barclays Global Aggregate- Ex US
Global Treasury-Ex US	Bloomberg Barclays Global Treasuries- Ex US
Global Corporate-Ex US	Bloomberg Barclays Global Corporate- Ex US
UK Aggregate	Bloomberg Barclays Sterling Aggregate
UK Gilts	Bloomberg Barclays Sterling Aggregate Gilts
UK Corp	Bloomberg Barclays Sterling Aggregate Non-Gilts - Corporate
UK Linker	BofA Merrill Lynch UK Inflation-Linked Gilt
Canada Aggregate	FTSE TMX Universe Bond
Canada Treasury	BOA Merrill Lynch Canada Government
Canada Corporate	BOA Merrill Lynch Canada Corporate

Asset class	Index
EM Aggregate	Bloomberg Barclays EM Aggregate
EM Aggregate Sovereign	Bloomberg Barclays EM Sovereign
EM Aggregate Corporate	Bloomberg Barclays EM Corporate
EM Corporate IG	Bloomberg Barclays EM USD Agg-Corp–IG
EM Corporate HY	Bloomberg Barclays EM USD Agg-Corp-HY
Non-developed market debt	JPM EMBI+
US Convertibles	BofA ML US All Convertibles
US Securitized	Bloomberg Barclays US Securitized: MBS, ABS, CMBS
US Treasury 10+ Yr	Bloomberg Barclays US Treasury: 10+ Year
US Low Vol Equities	Invesco US Low Volatility Index
US High Div Equities	MSCI USA IMI High Dividend Yield
Private Credit – Sr Corp	Burgiss Senior Direct Lending

Past performance is not indicative of future results. An investment cannot be made directly into an index.

Thank you

Invesco

September 2021

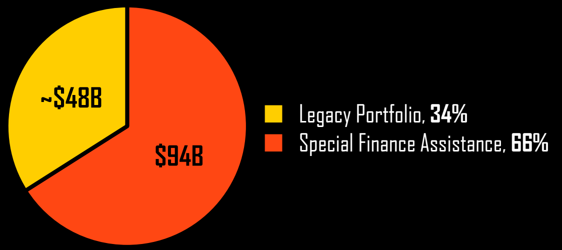
NCCMP 2021 Annual Conference

Multiemployer Plans

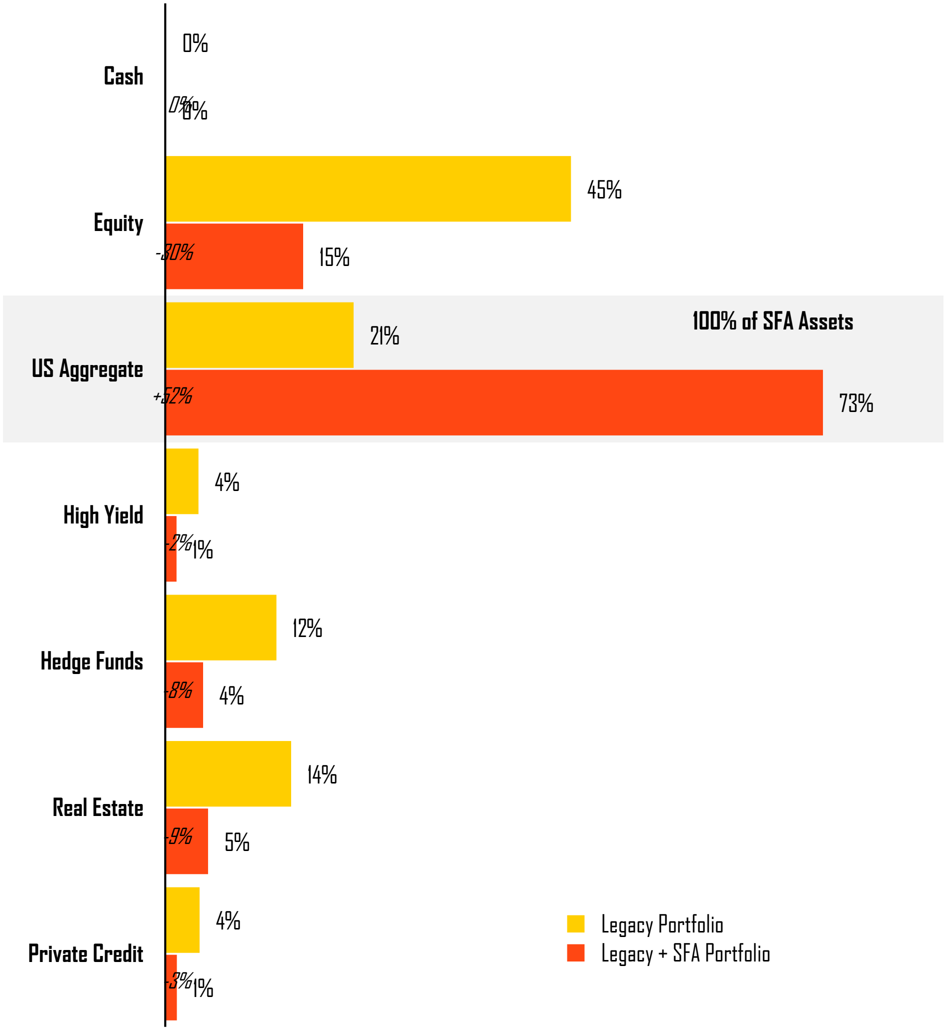
Special Finance Assistance (SFA) Analysis

Making a Splash

The $94B special finance assistance on average will comprise two-thirds of the overall asset pool for the eligible multiemployer cohort



Portfolio allocation before and after SFA



Portfolio allocation is based on a representative critical and declining plan and is for illustrative purposes only. The US Aggregate Index was used to proxy the SFA portfolio of investment grade fixed income exposure. It is not possible to invest directly in an index. Please see the 'Allocation and Benchmarks' slide in the appendix for more information.

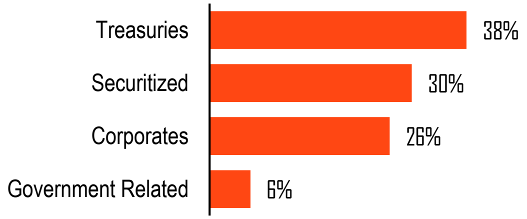
Benchmarking the Implications

The low for longer yield environment may present challenges to achieving a 5.5% bogey

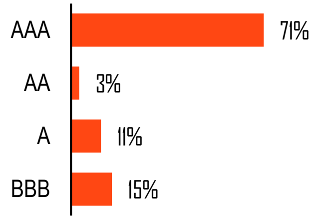
Source: BlackRock, Yield as of 6/30/2021, Risk as of 2/28/2021.
Ex-ante risk is defined as annual expected volatility and is calculated using data derived from existing portfolio holdings, using the Aladdin portfolio risk model. This proprietary multi-factor model can be applied across multiple asset classes to analyze the impact of different characteristics of securities on their behaviors in the market place. In analyzing risk factors, the Aladdin portfolio risk model attempts to capture and monitor these attributes that can influence the risk/return behavior of a particular security/asset. Risk: Monthly Constant Weighted (MTC model) with 246 monthly observations; 1 standard deviation; 1yr horizon. For additional details see the Risk Factor Glossary in the Appendix.
The following indexes were used to represent each asset class: Euro IG - BBG Barc Pan-European Aggregate Corporate in USD | Long Gov - BBG Barc Treasury 10+ Yr Index | ABS - BBG Barc ABS Index | Short Gov - BBG Barc Government 1-3 Yr Index | Euro HY - BBG Barc Pan-European High Yield (2% Issuer Constraint) in USD | CMBS - BBG Barc Pan-European High Yield Index | Global Agg - BBG Barc CMBS, Eligible for U.S. Aggregate | Int Gov - BBG Barc Global Aggregate Index | US IG - BBG Barc Intermediate Government Index | US Agg - BBG Barc Corporate Index | Int Agg - BBG Barc U.S. Aggregate Index | EM - Barclays Intermediate Aggregate Bond Index | US HY - JP Morgan EMBI Global Diversified Index | CLO - BBG Barc U.S. Corporate High Yield | EMD - JP Morgan CLOIE Investment Grade Index | Securitized - 50% JP Morgan Emerging Markets Bond Index Global Diversified and 50% JP Morgan Government Bond Index Emerging Markets Global Diversified | MBS - BBG Barc Securitized Index | EM Corps - BBG Barc MBS Index | Asian Credit - JP Morgan CEMBI Broad Diversified Index | US Loans - JP Morgan Asia Credit Index. It is not possible to invest directly in an index. **Past performance is not indicative of future results.**

Disaggregating the US Aggregate

Sector Breakdown



Ratings Breakdown



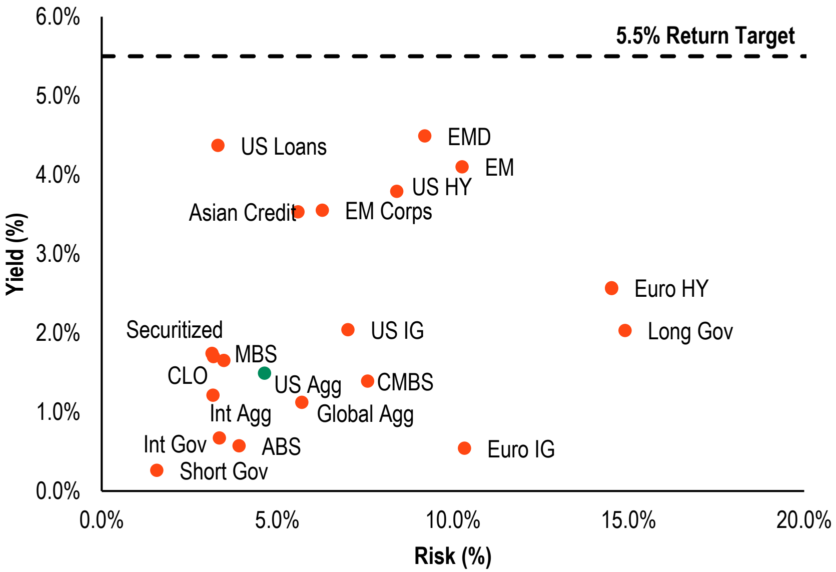
Other Statistics

Duration
6.69 years

Volatility
4.64 %

Predominant Risk Factor
Rates

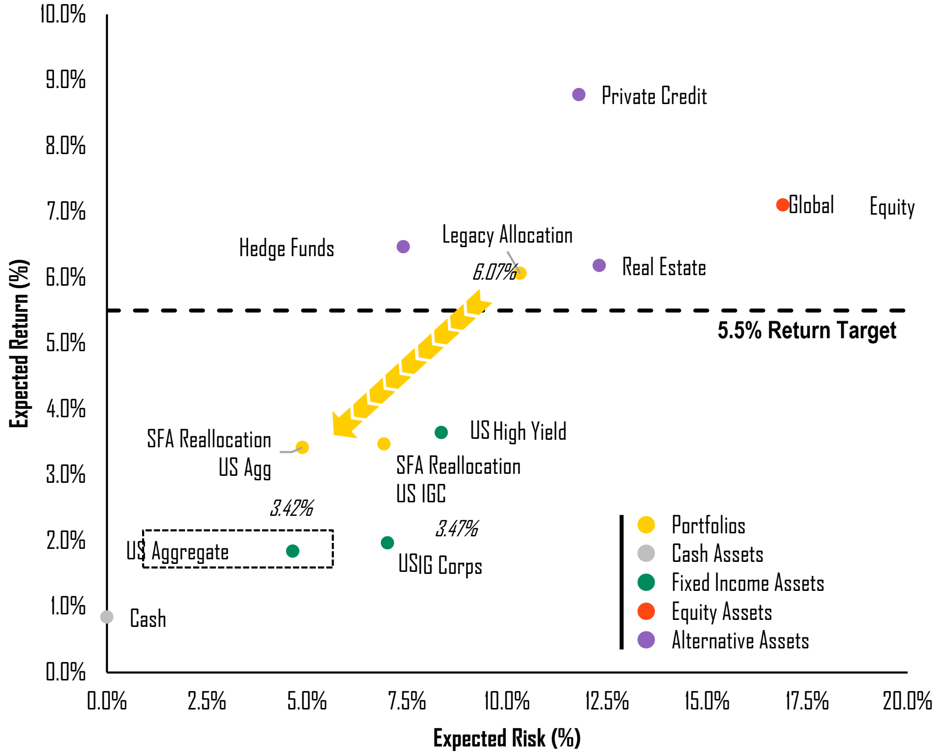
Off target



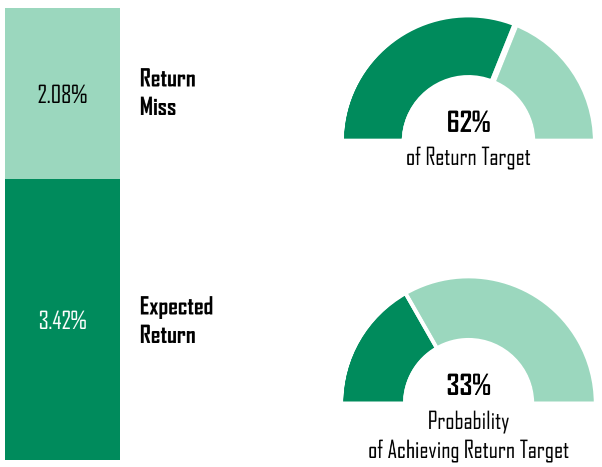
Managing Expectations

Looking forward, portfolios with significant investment grade fixed income exposures should expect tempered returns

BlackRock's Long Term Capital Market Assumptions



SFA Reallocation
US Aggregate

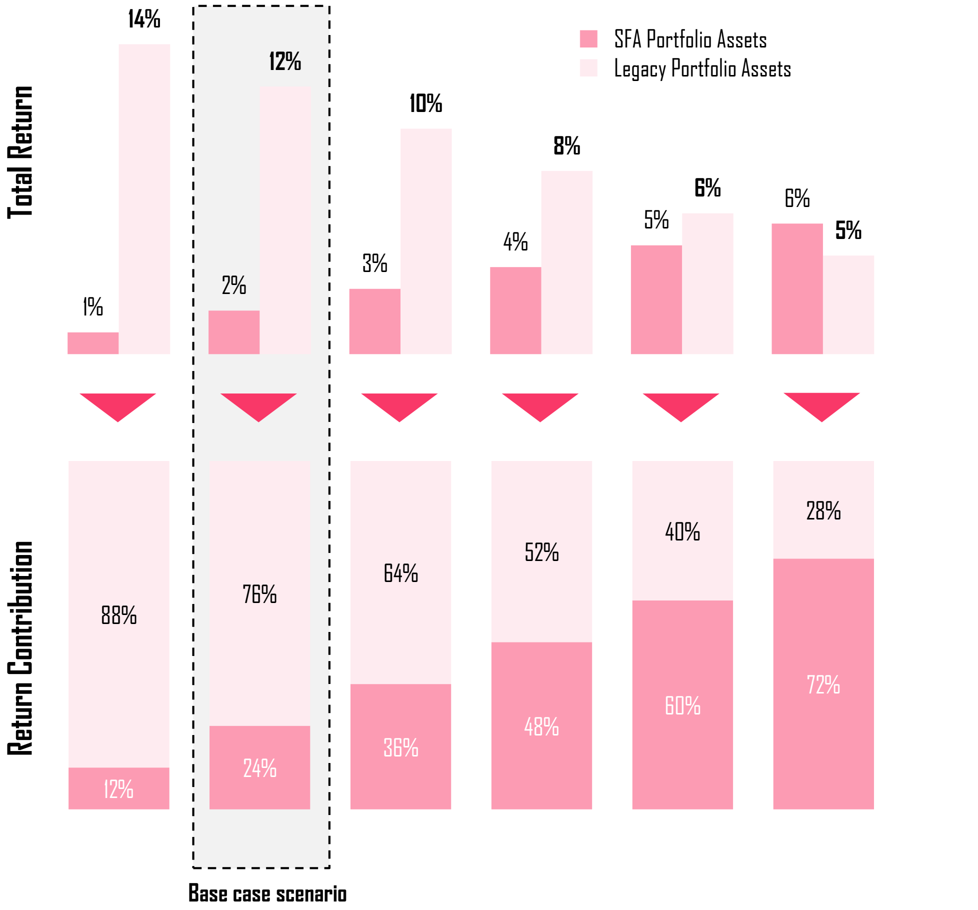


Source: BlackRock as of May 2021, based on BlackRock's capital market assumptions. Expected risk is calculated using the expected volatility assumptions. See slide titled "Capital Market and Modeling Assumptions" in the Appendix for additional details, including the indexes used to represent each asset class. This asset class mapping is also used for the ex-ante risk contribution. Risk: Monthly Constant Weighted (MTC model) with 246 monthly observations; 1 standard deviation. The probability of achieving return target is based on the expected risk and return and a normalized distribution. There is no guarantee that the capital market assumptions will be achieved, and actual risk and returns could be significantly higher or lower than shown.

A High Hurdle

Our expected return for the US Aggregate is less than 2%; assuming the SFA assets return 2%, the legacy asset pool would need to return 12% to achieve a 5.5% return, based on our Capital Market Assumptions

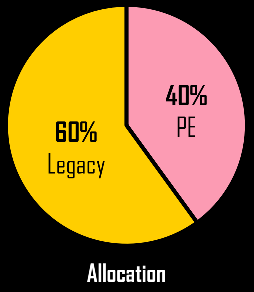
Required return of legacy asset pool to achieve a 5.5% return

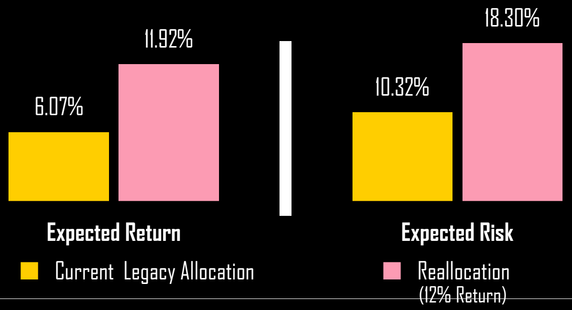


For illustrative purposes only. The return requirement of the legacy portfolio assets is based on the ratio of legacy to SFA assets (66% SFA, 34% Legacy), a hypothetical return of the SFA portfolio assets, and a 5.5% total portfolio return. The base case scenario of a 2% return for the SFA assets is based on the expected returns of the investment grade assets shown on the

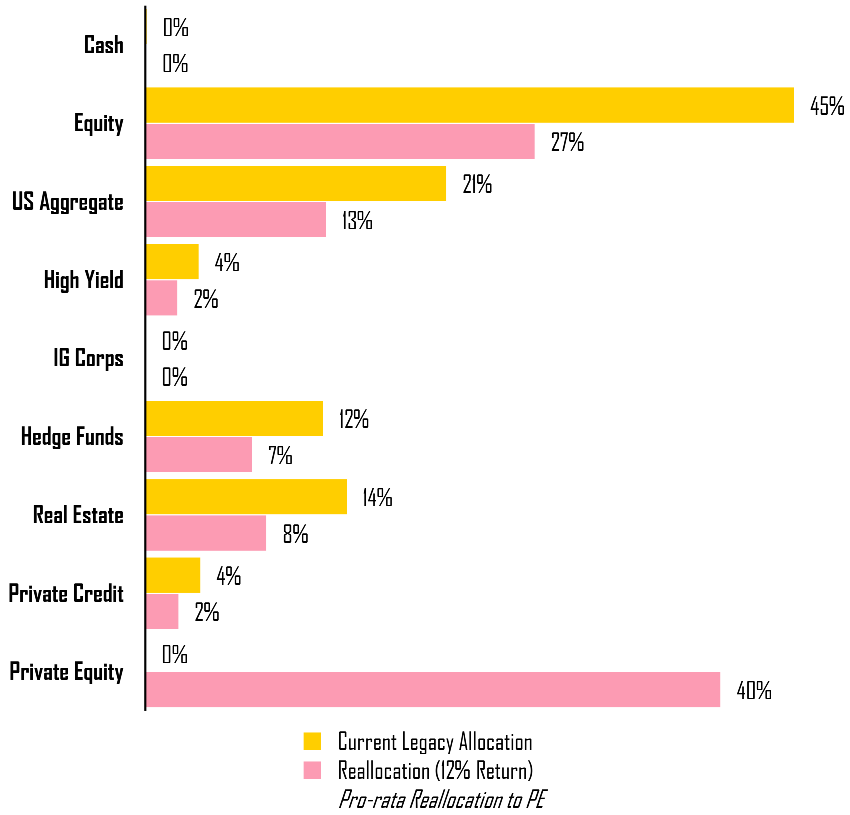
A Barbell Strategy

To hit a 12% return, the legacy asset pool may need to invest 35-40% of its assets in private equity-like assets





Portfolio allocation before and after PE reallocation



Source: BlackRock as of May 2021, based on BlackRock's capital market assumptions. Expected risk is calculated using the expected volatility assumptions. See slide titled "Capital Market and Modeling Assumptions" in the Appendix for additional details, including the indexes used to represent each asset class. This asset class mapping is also used for the ex-ante risk contribution. There is no guarantee that the capital market assumptions will be achieved, and actual risk and returns could be significantly higher or lower than shown. Risk: Monthly Constant Weighted (MTC model) with 246 monthly observations; 1 standard deviation.

The focus of the reallocation and associated metrics are solely of the legacy assets (without the SFA infusion). While the risk of the standalone reallocated legacy assets increases significantly (~8%) , the combination of the total portfolio – the reallocated legacy pool combined with the low risk SFA assets - decreases risk to 6.84% (-3.5%) . The reallocation is a pro-rata movement of exposures to Private Equity to illustrate a portfolio that may achieve a 12% return based on our capital market assumptions. The represented reallocation may be sub-optimal and difficult to implement. It is not an investment recommendation and is for illustrative purposes only.

Appendix

Allocations and Benchmarks

Description	Benchmark	Legacy Portfolio *Current*	Legacy Portfolio *Reallocation (PE)*	SFA Infusion *Reallocation US Agg*	SFA Infusion *Reallocation US IGC*
Cash	USD Cash Benchmark	0%	0%	0%	0%
Global Equity	MSCI All Country World Index	45%	27%	15%	15%
US Aggregate	BBG Barc US Aggregate Index	21%	13%	73%	7%
US High Yield	BBG Barc US High Yield Index (2% Issuer Cap)	4%	2%	1%	1%
US IG Corps	BBG Barc US Corporates Index	0%	0%	0%	66%
Hedge Funds	BlackRock Proxy: Hedge Fund (Global Fund Weighted)	12%	7%	4%	4%
Real Estate	BlackRock Proxy: Real Estate US Core	14%	8%	5%	5%
Private Credit	BlackRock Proxy: Direct Lending	4%	2%	1%	1%
Private Equity	BlackRock Proxy: Private Equity US Buyout	0%	40%	0%	0%

Based on a representative critical and declining plan portfolio allocation

Capital Market and Modeling Assumptions

Capital market assumptions for the portfolio components referenced throughout the presentation are provided below

Asset Class	Description	Benchmark	(10yr) Expected Return	Expected Risk
Cash	Cash	USD Cash Benchmark	0.84%	0.00%
Equity	Global Equity	MSCI All Country World Index	7.10%	16.89%
Fixed Income	US Aggregate	BBG Barc US Aggregate Index	1.84%	4.64%
Fixed Income	US High Yield	BBG Barc US High Yield Index (2% Issuer Cap)	3.65%	8.35%
Fixed Income	US IG Corps	BBG Barc US Corporates Index	1.97%	7.01%
Alternatives	Hedge Funds	BlackRock Proxy: Hedge Fund (Global Fund Weighted)	6.47%	7.41%
Alternatives	Real Estate	BlackRock Proxy: Real Estate (US Core)	6.18%	12.30%
Alternatives	Private Credit	BlackRock Proxy: Direct Lending	8.78%	11.79%
Alternatives	Private Equity	BlackRock Proxy: Private Equity (US Buyout)	19.13%	32.03%

The representative indices listed above may differ from those that are publicly available, but the underlying methodology and assumptions are consistent. BlackRock expected market return information is based on BlackRock's long-term capital market assumptions as of May 2021 which are subject to change. Capital market assumptions contain forward-looking information that is not purely historical in nature. They should not be construed as guarantees of future returns. The projections in the chart above are based on BlackRock's proprietary long-term capital markets assumptions (10+ years) for risk and geometric return (above) and correlations between major asset classes. These asset class assumptions are passive only and do not consider the impact of active management. The assumptions are presented for illustrative purposes only and should not be used, or relied upon, to make investment decisions. The assumptions are not meant to be a representation of, nor should they be interpreted as BlackRock's investment recommendations. Allocations, assumptions, and expected returns are not meant to represent BlackRock performance. Long-term capital markets assumptions are subject to high levels of uncertainty regarding future economic and market factors that may affect actual future performance. Ultimately, the value of these assumptions is not in their accuracy as estimates of future returns, but in their ability to capture relevant relationships and changes in those relationships as a function of economic and market influences. Please note all information shown is based on assumptions, therefore, exclusive reliance on these assumptions is incomplete and not advised. The individual asset class assumptions are not a promise of future performance. Indexes are unmanaged and used for illustrative purposes only and are not intended to be indicative of any fund's performance. It is not possible to invest directly in an index.

Risk Factor Glossary

Risk Factors	Description
Alternatives	Contribution to portfolio risk arising from a portfolio's exposure to alternative assets and strategies.
Commodities	Contribution to portfolio risk arising from a portfolios exposure to commodity prices.
Emerging Market Spread	Contribution to portfolio risk arising from a portfolio's exposure to emerging market bond credit spreads over benchmark interest rates.
Equity – Country	Contribution to portfolio risk arising from a portfolio's exposure to returns of country specific equities adjusting for market, sector and style effects.
Equity – Dividend Yield	Contribution to portfolio risk arising from a portfolio's exposure to companies with different dividend yield levels.
Equity – Growth	Contribution to portfolio risk arising from a portfolio's exposure to companies with different historical growth.
Equity – Idiosyncratic	Contribution to portfolio risk arising from a portfolio's exposure to stock specific idiosyncratic risk not captured by the common risk factors.
Equity -- Market	Contribution to portfolio risk arising from a portfolio's exposure to returns across the equity market. This factor captures the risk associate with general equity market movements.
Equity – Momentum	Contribution to portfolio risk arising from a portfolio's exposure to companies with recent price momentum.
Equity – Sector	Contribution to portfolio risk arising from a portfolio's exposure to the returns of sector specific equities adjusting for market, country, and style effects.
Equity – Size	Contribution to portfolio risk arising from a portfolio's exposure to companies of different market capitalization.
Equity – Style	Contribution to portfolio risk arising from a portfolio's exposure to the returns of factors such as value, growth, size and momentum. Style factors are constructed from company fundamentals, analyst estimate data and historical market data.
Equity – Value	Contribution to Portfolio Risk arising from a portfolio's exposure to companies of different valuations.
Equity -- Volatility	Contribution to portfolio risk arising from a portfolio's exposure to companies with different historical volatility.
Foreign Currency (FX)	Contribution to portfolio risk arising from a portfolio's exposure to risk associated with changes in foreign exchange rates.
Interest Rates	Contribution to portfolio risk arising from a portfolio's exposure to risk associated with changes in yield curves.
Inflation	Contribution to portfolio risk arising from a portfolio's exposure to risk associated with changes in inflation.
Other	Contribution to portfolio risk arising from a portfolio's exposure to remaining risk factors not shown.
Spreads – Credit	Contribution to portfolio risk arising from a portfolio's exposure to credit spreads. Credit spreads capture risk associated with investment grade, high yield, and distressed debt credit spreads over benchmark interest rates.
Spread -- High Yield	Contribution to portfolio risk arising from a portfolio's exposure to high yield credit spreads over benchmark interest rates.
Spread -- Investment Grade	Contribution to portfolio risk arising from a portfolio's exposure to investment grade credit spreads over benchmark interest rates.
Spreads -- Muni	Contribution to portfolio risk arising from a portfolio's exposure to municipal bond credit spreads over benchmark interest rates.
Spreads -- Securitized	Contribution to portfolio risk arising from a portfolio's exposure to securitized credit spreads over benchmark interest rates.

Source: BlackRock

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Past performance is not a guide to future performance. The value of investments and the income from them can fall as well as rise and is not guaranteed. You may not get back the amount originally invested.

Aladdin Portfolio Risk Analysis: Charts and graphs provided herein are for illustrative purposes only. Neither BlackRock nor the Aladdin portfolio risk model can predict a portfolio's risk of loss due to, among other things, changing market conditions or other unanticipated circumstances. The Aladdin portfolio risk model is based purely on assumptions using available data and any of its predictions are subject to change.

NCCMP 2021 Annual Conference

Strategies for Investment of SFA Assets

John DeMairo, President & CEO

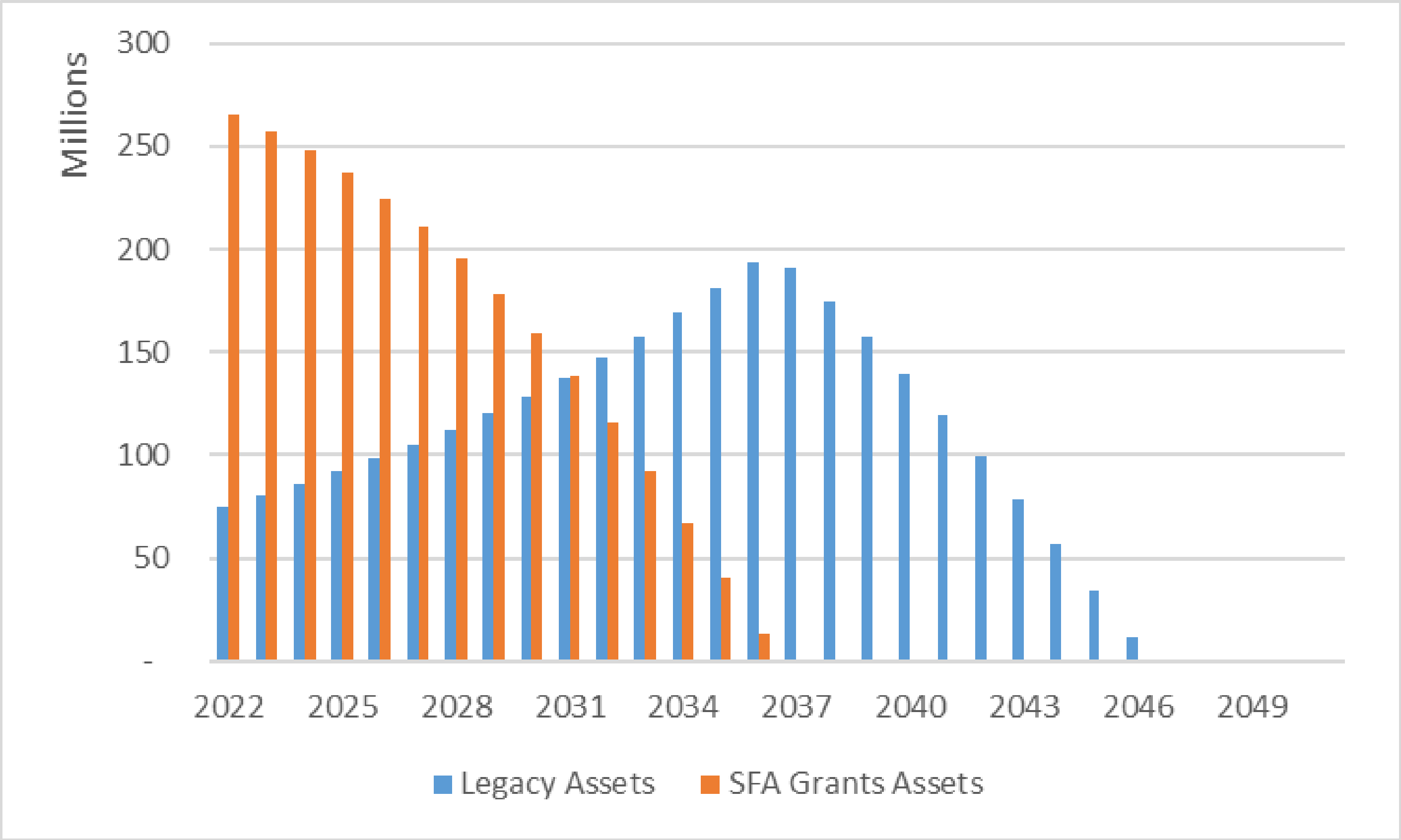
Segal Marco Advisors

ARPA and PBGC Guidance

Pension Benefit Guaranty Corporation Interim Final Rule

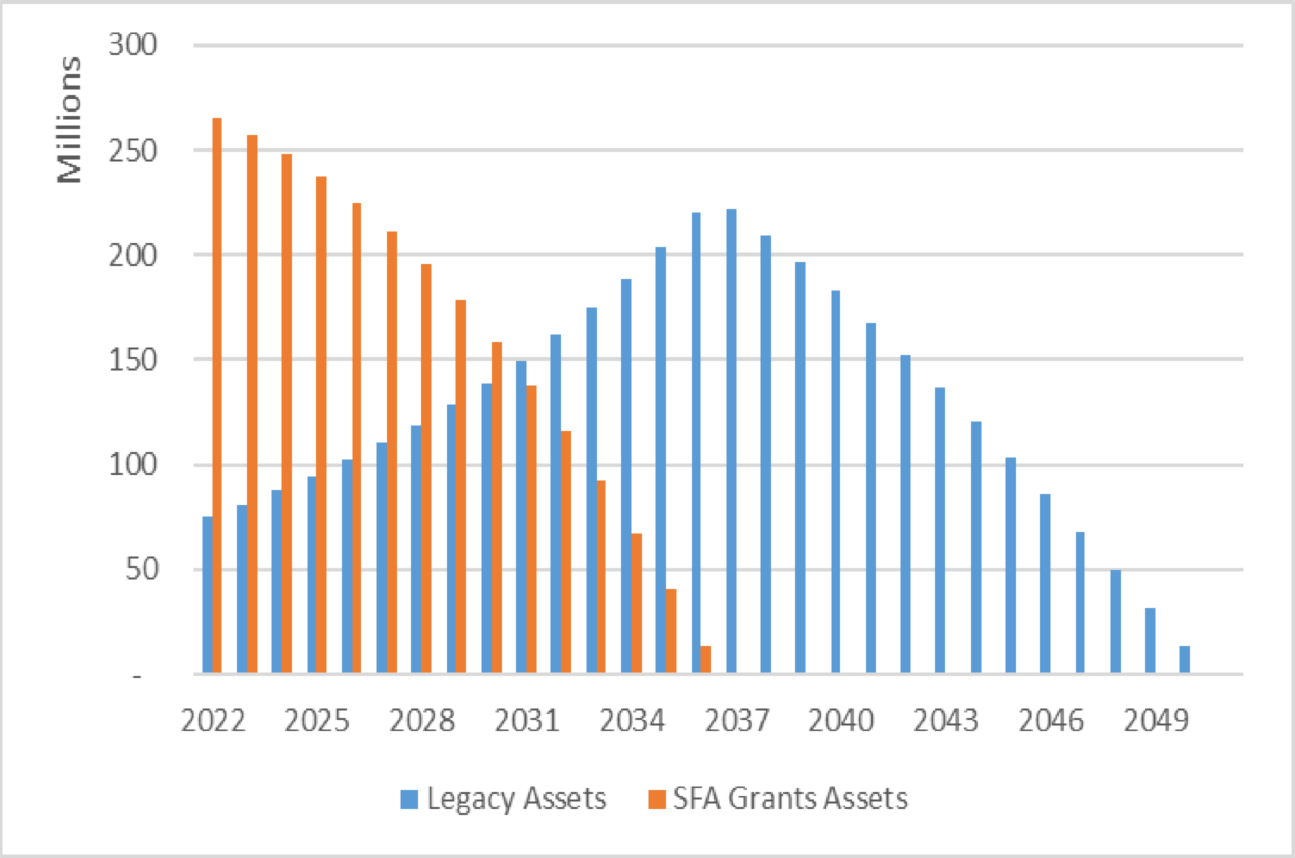
- On July 9, 2021, the Pension Benefit Guaranty Corporation (PBGC) released an interim final rule implementing the Special Financial Assistance (SFA) program.
  - There was a 30-day comment period during which public comments were welcome.
  - It is unclear whether or if final PBGC regulations will be issued.
- The following slides provide a summary of the letter Segal Marco Advisors submitted to the PBGC.

ARPA Review: Investment Restrictions



- Assumptions
  - Legacy Assets = $75 million and Special Financial Assistance (SFA) = $263 million
  - Discount rate used for the SFA will be based on the third segment corporate bond rate plus 200 bps in most cases, or approximately 5.5%.
  - SFA assets are spent first and earn an annual return of 2.5%. Legacy Assets earn an annual return of 7.0%
- The Fund would be unable to make benefit payments through 2051 and therefore could incentivize Trustees to take more risk in their legacy assets in an effort to extend the projected insolvency date

ARPA Review: Investment Considerations



- The Fund would need to earn 8.0% on the Legacy Assets in order to extend the projected insolvency date. Targeting a higher expected return would mean taking on more investment risk which would also exacerbate downside scenarios.
- The advantages of allowing other debt-like investments besides investment grade bonds in the SFA grant assets include higher return potential and diversification benefits.
- The disadvantages of allowing these other assets include added complexity (enhanced credit risk, subordination risk, counterparty risk, and other idiosyncratic risks) and more complicated investments would likely be associated with higher investment management fees

ARPA Review: Other Asset Class Options

		All Bond Portfolio	Low Risk Portfolio	Balanced Portfolio	High Yield	IG Corp Only	IG Corp w/Equity
Bonds	Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Core Fixed Income	100.0%	85.0%	50.0%	75.0%	0.0%	0.0%
	High Yield	0.0%	0.0%	0.0%	15.0%	0.0%	0.0%
	IG Corporate Only	0.0%	0.0%	0.0%	0.0%	100.0%	90.0%
Equity	US Equity	0.0%	15.0%	50.0%	10.0%	0.0%	10.0%
	Developed Equity (U)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Emerging Markets Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Sum	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Risk & Return	Average Return	2.5%	3.4%	5.5%	3.5%	2.8%	3.4%
	Compound Return	2.4%	3.3%	5.1%	3.4%	2.6%	3.2%
	Standard Deviation	5.0%	4.8%	9.1%	4.9%	5.5%	5.5%
	Sharpe Ratio	0.12	0.31	0.40	0.33	0.16	0.27

- Adding assets with low correlation to investment grade bonds can achieve lower portfolio volatility and higher expected return – than a portfolio of investment grade bond alone
- A portfolio with 15% invested in public equities and 85% invested in investment grade fixed income has a lower risk and higher return than the portfolio of investment grade fixed income alone
- A portfolio with at least 50% invested in public equities would be needed to achieve an expected return equal to the discount rate used in calculating the SFA grant (approximately 5.5%)
- A portfolio with 10% in public equities, 15% in high yield bonds, and 75% in investment grade fixed income also has a better risk/return profile
- A portfolio of investment grade corporates (with higher yields) would assume more investment risk than other portfolios that include equities

Investment Strategy

Philosophy	• To acknowledge that each multiemployer pension plan has its own characteristics – funding level, demographics, cash flow, liquidity, size of financial assistance, etc.
Approach	• To develop an investment solution that is customized, despite current limitations on permissible assets for SFA, and holistic in its attention to assets and liabilities.
Objectives	• To strike the proper balance between meeting the needs to pay benefit obligations and building long-term financial security.
Strategy	• To structure a SFA portfolio that is focused on benefit driven investing and a Legacy portfolio that invests in return generating assets.
Asset Allocation and Implementation	• To manage the overall portfolio (combined SFA and Legacy), the Fund's risk and liquidity profile and determine the role of existing and/or new managers and cost.
Communication	• To ensure that the planning, reporting and monitoring is regular and that there is effective communication between the Board of Trustees and Fund professionals.

Investment Implementation Topics

- Benefit Driven Investing vs. Absolute Return
- Capital Market Assumptions
- Fixed Income Markets
- Glide Path
- Lower Cost, More Transparent Investments vs. Alternative Investments

Conclusion

- Segal Marco along with many other experts across the asset management and investment consulting industries and pension plan trustees have expressed concerns about the disconnect between the discount rate used to determine the amount of SFA assets and the expected return of permissible investments under existing guidelines
  - This disconnect creates a situation where the probability of total plan assets satisfying all benefit payments through 2051 is quite low
- We believe potential changes to the current PBGC guidelines pertaining to permissible investments could improve the probability of satisfying all benefit payments through 2051
  - Expanding permissible fixed income investments to include opportunities in synthetic instruments, hybrid securities, preferred equities, etc.
  - Adding assets with low correlation to investment grade bonds can achieve both lower portfolio volatility and higher portfolio expected return – than a portfolio of investment grade bond alone
  - We believe with the assistance of reputable institutional investment consultants, who take fiduciary responsibility, a Fund can create a diversified asset mix designed to achieve the require rate of return needed to satisfy benefit payment obligations through the designated timeframe of the ARPA asset grants

Appendix

PBGC’s Specific Questions

1) PBGC is interested in understanding the potential benefits and risks of investing SFA assets in other vehicles that are or have the nature of fixed income. These might include synthetic replications of fixed income securities, insurance contracts, hybrid securities, preferred stock or other vehicles. In this regard, the following questions are of interest:

   What are the advantages of investing in such vehicles, relative to a portfolio of investment grade fixed income, in terms of expected returns, reduced risk or other improved outcomes?

   What are the disadvantages of investing in such vehicles relative to a portfolio of investment grade fixed income, including lower returns, higher risk, inequitable outcomes amongst participants or other issues?

   What are the implementation and management costs of investing in such vehicles?

   Which organizations are qualified to manage and advise on these vehicles?

   Can the vehicles, as they might be used in multiemployer plan portfolios or in the pool of SFA assets, be clearly defined and easily used?

2) Should permissible investments of SFA assets be limited to fixed income securities?

   For instance, should the rule permit investment of a percentage of SFA assets certain stock ETFs or mutual funds that have investment profiles that are not materially riskier than fixed income-based investment grade securities?

3) What is the appropriate amount of SFA assets that may be permitted to be invested in non- investment grade securities?

4) What is the proper relationship to restrictions on SFA asset investments to other plan asset allocations?